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Geography, culture, and religion: Explaining the bias in Eurovision song contest voting

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Geography, Culture, and Religion: Explaining the Bias in Eurovision Song Contest Voting

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Abstract

This paper analyses votes cast in the Eurovision Song Contest in the period $1975 - 2003$. We test whether accusations of 'political' voting among participants can be substantiated by looking at geographical influences. Our approach differs in two ways from earlier studies. First, we take into account a variety of variables to distinguish political voting from preferences based on cultural, linguistic, ethnic, and religious differences and similarities between countries. Secondly, we analyse the determinants of the voting behaviour separately per country, instead of looking at average effects over all participating countries. We find that geographical factors substantially affect the votes. Even after correction for cultural, linguistic and other factors many countries prefer or dislike the songs of surrounding countries. This leads to the suspicion that the geographical preferences reflect political voting. Also, we show that several countries favour songs of participants with the same religious background, while others prefer the contributions of countries with a different religion. Moreover, using data on the amount of Turkish immigrants across European countries, we document that countries with a substantial Turkish population favour the Turkish songs ('patriotic' voting). Furthermore, we study the repercussions of opening up the voting system to the general public by the introduction of televoting. It turns out that religious and patriotic voting have become considerably stronger since the introduction of the new voting system. Finally, we confront our empirical findings to the publicly debated accusations of political voting made against certain blocks of countries. Although our analysis uncovers significant geographical patterns (suggesting political voting), we do hardly establish any empirical evidence for the claims against these particular countries.

Keywords: Eurovision Song Contest, voting competition, panel data
AMS Subject Classification: 62P20, 91B12

1 Introduction

The Eurovision Song contest is an annual event in which a large number of countries compete for the title of 'best' Eurovision song. From its small start in 1956 with only seven participants, it has grown into a huge entertainment spectacle with about hundred million viewers in 2005.

Since the winner of the Eurovision Song Contest is determined by a scoring system based on votes given by the participating countries themselves, suspicions and accusations of 'tactical' and 'political' voting are as old as the song contest itself. That there is some systematic 'bias' in Eurovision Contest voting can hardly be doubted when considering e.g. the points assigned by Cyprus and Greece to each other. In the period $1993 - 2003$ Cyprus and Greece gave each other the maximal number of points in virtually all years.

However, even for this convincing example we should not forget that before making a claim about 'unfair' voting patterns, we should consider at least two extra factors. First, cultural and linguistic similarities and differences may result in a common musical taste leading to a strong preference for particular countries' songs. Therefore, awarding a relatively high number of points to a certain country throughout the years does not necessarily have to be purely 'political' behaviour. Secondly, voting bias is a relative phenomenon. In 1992 Greece became 5th out of 23 with only 8 countries giving zero points, while in 2003 it became 17th out of 26, with 19 countries giving zero points. It seems natural to consider the 12 points awarded to Greece by Cyprus in 2003 as a stronger indication for a bias than the 12 points awarded in 1992.

In this paper we investigate in detail whether the suspected voting political biases exist by looking at geographical influences. In contrast to the existing literature (see e.g. Ginsburgh & Noury (2004) and Haan, Dijkstra & Dijkstra (2005)), we take the view that the voting bias towards certain songs may differ significantly among the participants due to differences in the above factors. The often heard accusations that there are systematic biases in votes usually focus on a few countries. Therefore, it is important to examine such hypotheses on an individual basis, i.e. per country. Additionally, we introduce a variety of variables to distinguish political voting from preferences based on cultural, linguistic, ethnic, and religious differences and similarities between countries.

We establish the following results. Geographical factors strongly affect the voting behaviour of the countries that participate in the Eurovision Song Contest. Even after correction for cultural, linguistic, and other factors, many countries prefer or dislike the songs of neighbouring countries or other countries close by. Hence, the preference of these countries for the songs of surrounding countries *cannot* be explained by e.g. linguistic and cultural similarities. This gives rise to the suspicion that the geographical effects reflect 'political' voting, as it is difficult to think of any other reasons why countries would show such behaviour. Furthermore, we establish significant evidence for 'religious' voting. That is, some countries favour songs of participants with the same religious background, while others prefer the contributions of countries with a different religion. Moreover, we show that also ethnicity plays a role in explaining the voting bias. Using data on the amount of Turkish immigrants

across European countries, we find that the countries with a substantial Turkish population clearly favour the Turkish songs. We refer to this as 'patriotic' voting. Additionally, we show that religious and patriotic voting have become considerably stronger since the introduction of televoting in 1997/1998. Finally, we confront our findings to some publicly debated accusations of political voting addressed to certain blocks of countries, including e.g. the Baltic states, the former Republic of Yugoslavia, Scandinavia, and Greece and Cyprus. Although our results uncover significant geographical patterns in the voting biases (suggesting political voting), the accusations of political voting against these groups of countries are hardly supported by empirical evidence. For example, the huge bias between Cyprus and Greece can be explained for a significant part by the common language and a common religious background.

The setup of this paper is as follows. Section 2 briefly discusses some earlier studies dealing with the Eurovision Song Contest. Section 3 explains the rules of the contest and the data set used in this paper. In Section 4 we describe the variables that potentially affect the voting bias. Also, we provide some sample statistics as preliminary evidence that these variables do indeed play a role. This leads us to Section 5, where we describe the panel data model that explains the voting bias from several determinants. Next, Section 6 discuss the estimation results and Section 7 investigates the robustness of the estimation results. In Section 8 we consider some frequently debated accusations of political voting in the light of our empirical results. Finally, Section 9 concludes.

2 Literature review

There is an extensive amount of information available on the Eurovision Song Contest, varying from detailed web sites containing data to academic publications. In this section we discuss some important contributions to the latter category.

Fenn, Suleman, Efstathiou & Johnson (2005) study the voting patterns in the Eurovision Song Contest by means of a network approach. For every year of the contest, they construct a graph with all participating countries as nodes. There is an arrow from country A to country B, if country A awards points to country B. The actual number of points does not play a role here. The resulting graph is compared to a random graph in terms of a quantity called the 'clustering coefficient'. This coefficient measures the probability that two countries awarding points to a particular song, also award points to each other. For the years $1992 - 2003$, the clustering coefficient for the graphs based on the voting results is always larger than the clustering coefficient in equivalent random graphs. This suggests what the authors call 'voting cliques'.

In the same paper, cluster analysis is used to show which countries behave similarly in terms of the average number of points awarded to other countries.[1] The results suggest some correlation between countries' voting patterns based on geographical proximity. But, there are some important exceptions to this rule as well. For example, Spain is not included in a cluster containing France and Portugal, and

[1]The authors assume that countries assign a virtual 14 points to themselves.

there is no correlation between Cyprus and Turkey although they are geographically very close. The authors conclude that the observed voting similarities arise for more subtle reasons, such as a common historical or cultural background, instead of just geographical proximity. This is exactly the hypothesis we will test in more detail in the present paper. In this sense, part of our study can be seen as an extension of Fenn et al. (2005).

For the period $1956 - 1997$, Haan et al. (2005) explain the final ranking of the songs participating in the Eurovision Song Contest from various performance features, the order of performance, and the host country. They show that the expert juries (that gave points to the songs until 1996) are better judges than the public (that judges the finals since the introduction of televoting in 1997). The juries are better judges in the sense that the ranking of the songs judged by them is less sensitive to factors unrelated to song quality. However, the authors also show that expert judgement is not perfect and still depends on such factors.

Ginsburgh & Noury (2004) provide the most detailed statistical analysis performed so far upon the Eurovision Song contest votes. The authors distinguish 'tactical voting' (where two countries exchange votes) and 'cultural voting' (where countries prefer songs from those countries which satisfy certain cultural characteristics). To do so, they define a model to explain the number of points given from a country i to a different country j from the number of points given by j to i, as well as some other variables. These remaining variables represent linguistic differences (based on the distances between languages as formulated and measured by Dyen, Kruskal & Black (1992)), performance features (such as the gender of the lead singer, composition of the performing group, order of performance, and whether the performers are from the country hosting that year's contest), and cultural differences based on Geert Hofstede's cultural dimensions (see Hofstede (1980) and Hofstede (1996)). For the period $1975 - 2003$, Ginsburgh & Noury (2004) test the hypothesis that votes have been exchanged in the contest. The authors find hardly any evidence for this hypothesis. By contrast, song 'quality' plays a substantial role in explaining the voting behaviour. Moreover, cultural variables such as language and Hofstede's cultural dimensions turn out significant in most of their models. The authors conclude that what looks as strategic voting in the Eurovision Song Contest at first sight, may in fact be sincere voting based on linguistic and cultural similarities.

3 Definitions and data

This section discusses the rules for the Eurovision Song Contest and the data selected for our analysis. Throughout, we take the data from various Eurovision Song Contest web sites.[2]

3.1 Rules of the contest

The rules for the Eurovision Song Contest are relatively simple. Each participating country contributes a song that has not been released commercially before with a

[2]See `http://www.eurovisioncontest.co.uk` and `http://members.fortunecity.com/mcdeil69/1980.htm`.

duration less than three minutes. If the song is performed by a group, there can be at most six people in it. Performers can sing in any language nowadays, even in a nonexistent language.[3] However, from 1966 until 1972 and again from 1978 until 1998 songs were required to be performed in one of a country's official national languages. Each country ranks all the entries and assigns twelve points to their favourite entry, ten points to their second favourite entry, and eight through one points to their third through tenth favourites. Obviously, countries are not allowed to vote for themselves. The number of participants has always been more than 20 in recent years, so each jury assigns zero points to many countries under this system. Voting takes place after all songs have been performed, and the country with the highest number of points wins.

Since 1997 (partially) and 1998 (fully) points are awarded by televoting instead of professional juries in virtually all countries.

3.2 Selection of years

The scoring system by which each song can earn 1,2,3,4,5,6,7,8, 10 or 12 points was introduced in 1975. Since 2004 a semi-final has been organised every year before the main competition, which partially determines which countries are going to participate during the main event. This semi-final was introduced to allow a larger number of countries to participate in the contest. We only use the years $1975 - 2003$ (inclusive) in our analysis, a period during which the voting rules have hardly changed. The only major change in this period is the introduction of televoting in 1997/1998, when voting by telephone replaced the professional juries. We discuss the influence of televoting extensively in Section 7.2.

3.3 Selection of countries

We consider all countries that have participated at least three times in the period $1975 - 2003$. These can be found in the first column of Table 1, together with the number of years in which each country participated ('# years') and the total number of votes assigned per country ('# votes'). The total number of votes given by all countries during the years considered amounts to $13,014$ votes. Note that, after the breakup of Yugoslavia, Bosnia and Herzegovina, Slovenia, and Macedonia are treated as separate countries.

Not every country will be present each year, causing the data to be 'unbalanced'. When the performance of a country would be strongly positively (negatively) correlated to its performance in the previous year, the set of participating countries in a year would only consist of the 'good' ('bad') performers. The missing countries would then represent the 'bad' ('good') performers, which could give rise to a selection bias (see Heckman (2003)). In Section 5.1 we will therefore explicitly investigate the potential selection bias.

[3] Belgium chose to do so in 2003.

4 Explaining the voting bias

This section addresses the geographical, cultural, linguistic, and religious factors that potentially affect the bias in the voting behaviour. Moreover, we provide some sample statistics as preliminary evidence that these factors are indeed expected to be relevant.

4.1 Bias

We start by defining the concept of 'bias'. Let T_{ij} be the number of years in which both countries i and j participate. Moreover, let n_{tij} be the number of countries participating in year t, exclusive of countries i and j themselves, and s_{tij} the points of jury i awarded to song j in year t. If country i or j does not participate in year t, the value of s_{tij} equals zero. The average bias of jury i towards song j (denoted by $\bar{b}_{ij}$) is calculated as the time-average of the bias over those years in which both countries participate. The bias b_{tij}, in turn, is defined as the difference between the points of jury i to song j and the average number of points assigned by the other juries to song j ($s_{tij} - q_{tij}$). More precisely,

$$\bar{b}_{ij} = \frac{1}{T_{ij}} \sum_{t} b_{tij}, \tag{4.1}$$

$$b_{tij} = s_{tij} - q_{tij}, \tag{4.2}$$

$$q_{tij} = \frac{1}{n_{tij}} \sum_{k \neq i} s_{tkj}. \tag{4.3}$$

When we interpret the average number of points assigned by the other juries to song j (q_{tij}) as a proxy for song 'quality', a large bias refers to an overvaluation and a small bias to an undervaluation of a song. Hence, when the number of points jury i assigns to song j is high, this does not necessarily mean that the bias of the jury is also high. This depends on the quality of the song; i.e. on the average number of points assigned to the song by the other juries.

4.2 Geographical influences

In contrast to earlier studies, we explicitly consider variables related to the geographical position of a country. We include such variables to account for the often voiced suspicion that these affect the votes. Most of the claims in this direction suggest that either countries which are close to each other tend to award each other a disproportionately high number of points, or that a block of 'West-European' countries and a block of 'East-European' countries tend to favour countries within their own block.

To investigate these hypotheses, we define several geographical variables. We take the longitude and latitude of the participating countries' capitals and define, for any receiving country j to the west of the awarding country i, the variable 'x_{ij}^{west}' as the distance between country i's longitude and country j's longitude (for countries to the east of i it is zero). For any receiving country j to the east of awarding country i, we define 'x_{ij}^{east}' similarly, i.e. as the distance between country i's longitude and country

j's longitude (for countries to the west of country i is zero). We do the same for the latitudes, resulting in the variables 'y_{ij}^{south}' and 'y_{ij}^{north}'. These definitions will allow us to detect a tendency to award more points to countries that are close, but also a tendency to vote for countries that are more in the East or in the West. Obviously, for some countries these variables become redundant. For example, from Iceland's point of view, all other countries are located to the east. If this is the case for a particular country, we only consider a distance variable that does not distinguish between directions.[4] We also define a dummy variable 'neighb_{ij}' to indicate whether two countries share a border on land.[5] This variable is redundant in some cases, for instance for islands and for countries which neigbours do not participate in the contest when they do.[6]

Table 1 displays a list of countries (column with caption 'country'). The columns with the caption 'min bias from' and 'max bias from' contain the names of the juries that are most negatively and most positively biased towards the countries in the first column, respectively. Table 1 points out an important role for neighbouring countries. Hence, some first confirmation of the claim that geographical position matters is found. The Netherlands favour Belgium, Norway favours Sweden, Germany favours Poland, Estonia favours Latvia, Lithuania favours Latvia, and Slovenia favours Croatia. Similar effects appear for countries that are not neighbours, but located relatively close to each other. For instance, Finland favours Estonia and Bosnia favours Slovenia. By contrast, France dislikes Monaco's contributions and Hungary dislikes Croatia's performances. Even stronger evidence for the relevance of geography is given by the pairs of countries (either neighbours or located relatively close to each other) that show a mutual preference for each other, such as Lithuania and Latvia, Estonia and Finland, Romania and Macedonia, and Croatia and Macedonia.

A more detailed overview of the average biases of individual jury countries to song countries over the years reveals even more geographical patterns (see Tables 2 and 3). Although the latter tables, as well as Table 1, do not provide direct evidence for a confrontation between Eastern and Western Europe, some grouping is clearly visible. Scandinavian countries (Denmark, Norway, Sweden, Iceland) are highly positively biased towards each other. Other countries with a positive bias are the former Yugoslavian countries, Finland and the Baltic states, and Greece and Cyprus.

Obviously, we wish to uncover 'pure' geographical effects rather than linguistic and cultural similarities and differences that could account for geographical patterns. In the formal analysis in Section 6.1 we will be able to distinguish genuine geographical preferences by correcting for a wide range of other factors.

4.3 Religion

The role of religion in the Eurovision Song Contest was publicly discussed after the 2005 contest won by Greece. The runner up Malta then claimed that there was a strong bias towards Greece from other Orthodox countries.[7] Moreover, recent

[4] We do this for Iceland, Israel, and Russia

[5] We do not define neighbours over sea.

[6] This is the case for Cyprus, Malta, Iceland, Israel, and Yugoslavia.

[7] See `http://www.eurosong.nl/NieuwsDetailUK.aspx?ID=246&Artiest=102&Landcode=MA.`

studies in the field of behavioural economics point out that religion often affects the decisions of economic agents (see e.g. Iannaccone (1995), Iannaccone (1998), and Kuran (1994)), providing additional motivation to assess the impact of religion on the voting behaviour.

We define dummy variables 'rel_{ij}', which are one if and only if the voting country i and the performing country j share a major religion. A religion in a country is taken into account if the percentage of people adhering to this religion is either the largest among all religions, or if it is second largest with at least 20% adherence. We make this particular choice to allow for more than one major religion in a country, but only if it is substantial. Moreover, we take a 20% threshold level, since most countries under consideration have about five major religions. We distinguish the religions Roman Catholic, Orthodox, Jewish, Muslim, and Protestant (covering Lutheran, Calvinist, Reformed, Anglican, and all other non-Catholic and non-Orthodox Christian varieties). We use the information provided in the CIA Factbook[8] to determine the major religions for each country under consideration. We do not use the percentages for the different religious groups as explanatory variables, since they fluctuate over the years. By contrast, the aforementioned dummy variable is much more stable over the years.

Finally, we notice that the inclusion of a variable accounting for religion should not be interpreted as an effort to explain musical tastes by religious preferences. We merely identify common characteristics between different countries that potentially explain the preferences observed in the Eurovision Song Contest votes. Also, although many European countries are highly secularised, religion may still be a factor of importance. It may reflect certain cultural characteristics of a country that have been established over the centuries and do not necessarily disappear when the role of religion becomes less prominent.

4.4 Ethnicity

Since reliable migration figures are hard to find, we only look at the specific case of Turkey, for which reliable migration data are widely available. The 2004's final Report of the Independent Commission on Turkey gives an overview of countries with a substantial Turkish population. Austria, Belgium, Denmark, France, Germany, Netherlands, Sweden, Switzerland, and United Kingdom all have a Turkish population of 37.000 persons or more, see *Turkey in Europe: More than a Promise?* (2004). The first generation of this Turkish population came to Europe as migrant workers in the sixties.

We do not use scaled versions of population numbers as explanatory variables, since these vary considerably over time. Instead, we use a dummy variable 'turkpop_i' for each country. This dummy equals one if a country has a large Turkish population and is zero otherwise.

Table 4 provides some first evidence for 'patriotic' voting. We see that, since televoting took over from the professional juries in 1997/1998, some of the aforementioned countries (most notably France, Germany, and the Netherlands) have

[8] See `http://www.cia.gov/cia/publications/factbook/fields/2122.html`

started to assign many points to the Turkish contribution. Table 4 also points out that the effect of Turkish migration was much weaker when the voting was still in the hands of professional juries. We mention that we obtain virtually the same results when we take the year 1997 (instead of 1998) as the start of the televoting period.

4.5 Linguistic, cultural & performance variables

We follow the idea of Ginsburgh & Noury (2004) and use the distances between the awarding and receiving countries' languages as an explanatory variable in our analysis. Hence, we use the results of the study of Dyen et al. (1992) on lexicostatistical distances to measure these distances on a scale from zero (closest) to one (most distant). A few languages are missing in the study of Dyen et al. (1992), such as Hungarian, Estonian, Finnish, Hebrew, Maltese, Turkish, and some of the languages from the former Republic of Yugoslavia. Therefore, we need to make some assumptions for these languages.[9] For almost all jury countries we define a unique standard language. For those countries that have more than one official language, we define the linguistic distance to a song's language as the minimum of the individual distances for every one of its official languages. Another difference with the earlier study is that we do not use the title of a song to define the song's language but the actual text sung, since these differ in many cases. When a song contains more than one language, we take the language of the refrain. We use the notation 'lang_{tij}' to indicate the linguistic distance between the jury of country i and the song of country j in year t.

The dummy variables that we use for the features defining the characteristics of the songs speak for themselves. They characterise the song as being sung in English or French (dummies 'english_{tj}' and 'french_{tj}'), performed by a solo male (the dummy 'male_{tj}' equals one in this case), a male-female duet (dummy 'duet_{tj}'), or a group (dummy 'group_{tj}'). Other variables identify in what order the songs are presented during the contest ('order_{tj}') and whether or not the performers represent the host country in a particular year (dummy 'host_{tj}'). These factors are considered, as there is some evidence that the order in which performances are viewed influences the points awarded by the jury, see Flores & Ginsburgh (1996) and Haan et al. (2005). The gender of the performer may have some influence as well, as shown in Ginsburgh & Van Ours (2003).

We use Hofstede's four cultural dimensions to capture the cultural differences among the participating countries. As in Ginsburgh & Noury (2004), we use the distances between the voting and the receiving countries' value for a Hofstede di-

[9] We take the distance of Hebrew, Maltese, and Turkish equal to one to all other languages, with exception of the distance between Hebrew and Maltese. The distance between Finnish and Estonian is taken to be 0.439, since the official Estonian language's web site compares this distance to another one (German-Persian) that can be found in Dyen et al. (1992). Likewise, the distance between Hungarian and Finnish was taken to be 0.860, as this distance is claimed to be the same as between Frisian and English. The distance from Hungarian, Finnish, and Estonian to all other languages is taken to be one, since these three languages belong to a different language group. We take Serbian (which is present in Dyen et al. (1992)) to be indicative for Bosnian and Croatian, as they seem to be the closest languages for which data are available. Belgium used an 'imaginary language' in 2003, which we define to have maximal distance one to all other languages.

mension as the explanatory variables. The four Hofstede dimensions are power distance, individualism, masculinity, and uncertainty avoidance, which are denoted by 'pdi_{ij}', 'idv_{ij}', 'mas_{ij}', and 'uai_{ij}', respectively.[10] Not all participating countries are mentioned in Hofstede's study, so we determine their cultural dimensions by other methods.[11] Even though this may not do complete justice to cultural differences in a few cases, we assume that these variables will still be able to capture some of the cultural features of the participating countries.

Since several studies have already analysed the influence of variables such as language and performance characteristics on the voting behaviour during the Eurovision Song Contest, we only briefly illustrate the relevance of these variables for the current sample in Table 5. Although less than 24% of all songs is in English, they account for almost 50% of all victories (rows with caption 'language'). This suggests that the language of the song plays a role in explaining the voting behaviour. Similarly, songs performed by groups obtain more victories than expected on the basis of group participation (rows with caption 'performance'). Also the order of performance seems to affect the votes (rows with caption 'order'). Although this order is drawn randomly each year, some places perform better or worse than expected. This phenomenon has also been observed in other competitions, see e.g. Ginsburgh & Van Ours (2003). According to Table 5, the last performer seems to have the biggest advantage. Finally, the host country also seems to benefit from its position, given that the percentage of contests won by the host country is substantially larger than expected (rows with caption 'host country').

5 The model

In this section we present a panel data model to explain the voting behaviour of the participating countries from various determinants.

5.1 Introduction

The votes for the Eurovision Song Contest during the period $1975-2003$ constitute a panel data set in the three dimensions time, juries, and songs. Since not all countries participate each year, the sample is unbalanced. Given the considerable size and dimension of the data set (29 years and 36 potentially participating countries leading to $13,014$ votes) and the large number of explanatory variables, we need a model that is both realistic and feasible.

Throughout, we take the bias defined by equations (4.2) and (4.3) as the dependent variable. This has the advantage of working with a continuous variable rather

[10] See `http://www.geert-hofstede.com`.

[11] For Yugoslavia and Bosnia Herzehovina we use Hofstede's values for Serbia as a proxy. Since only the Greek part of Cyprus participates in the contest, we use the same values for Cyprus as for Greece. For Monaco we use the values reported for France. As we cannot find any values for Latvia and Malta, we use the average found for all European countries in both cases. Values for Lithuania and Macedonia are taken from local studies that appeared after Hofstede's original publications, see `http://www.regent.edu/acad/sls/publications/journals/ijls/new/vol1iss1/mockaitis/cross_cultural.pdf` (Lithuania) and `http://www.cas.bg/obj/downloads/3_3/Tanya%20-%20final%20project.pdf` (Macedonia).

than a categorical one, such as the number of points assigned from one country to another or the final ranking of a song in the contest.[12]

Our analysis focuses on fixed effects. In contrast to most existing fixed effects models, we allow both intercepts and slopes to vary per jury country (see e.g. Yaffee (2003)). We opt for such a specification, since we expect variation in the way the voting behaviour of different countries is determined by variables such as cultural and linguistic differences, performance features, and geographical factors. Moreover, a model with cross-sectional variation in slopes permits formal testing for equality of slopes.

As mentioned before, a selection bias could be present in the data. Such a bias would occur when the performance of a country in a particular year is significantly related to its performance in the previous year. Unfortunately, it is not possible to do a formal test for selection bias (see Nijman & Verbeek (1992)), since we do not observe any songs for the countries that do not participate in a particular year. Therefore, we use an alternative approach. For each country we calculate the first order autocorrelation in the song quality, with song quality defined as in equation (4.3). Using the Ljung-Box test, we subsequently test for autocorrelation in song quality, taking a 5% significance level. Fortunately, the results show that there is significant first-order autocorrelation for one country only, namely for France. Since France (being one of the sponsors of the event) participates every year in the song contest independently of its performance in the previous year, the positive autocorrelation in song quality is not a problem and will not lead to a selection bias. Although this is not a formal test for selection bias, the insignificant autocorrelations suggest that the selection effects are limited.

5.2 Fixed effects model

Since our main focus is on the voting behaviour of the participating countries, we initially ignore any period effects and confine the analysis for the moment to cross-country effects. Our panel data set consists of the dependent variable b_{tij} − the bias of jury i towards song j in year t − and a corresponding $1 \times K$ vector of covariates X_{tij}, for $t = 1, \ldots, T$, $i = 1, \ldots, N$, with some missing observations. Here T denotes the number of years, N the number of countries under consideration, and K the number of explanatory variables. For the full sample $T = 29$ and $N = 36$, while K varies over different model specifications.

We write the initial fixed-effects model (alternatively referred to as a least-squares dummy variable model) as

$$b_{tij} = \alpha_i + X_{tij}\beta_i + \varepsilon_{tij}, \quad \mathbb{E}(\varepsilon_{tij} \mid X_{tij}) = 0, \tag{5.4}$$

where β_i is a column vector of dimension K and α_i an intercept. Identification of the model in equation (5.4) requires certain restrictions on the disturbance terms.

[12] Also, since the bias represents the difference between a country's points and the quality of the song determined by the other countries, we do not need to explain the bias from song quality anymore. This approach has the advantage that it avoids the problems of circularity and endogeneity encountered by Ginsburgh & Noury (2004).

We will discuss them later when we explain the estimation method. We stack b_{tij}, X_{tij} and ε_{tij} in such a way that we arrive at the more compact specification

$$b_i = \alpha_i + X_i\beta_i + \varepsilon_i. \tag{5.5}$$

This notation emphasises that we consider N *cross-sectional* equations.

5.3 Model estimation

As long as all intercepts and slopes vary across jury countries, we can the model in equation (5.5) separately per country using all votes assigned to the other countries over the years. However, as soon as we impose any cross-country restrictions upon the coefficients, joint estimation of all country equations is required.

Throughout, we use White (1980)'s robust covariance matrix to correct for (cross-sectional) heteroskedasticity. When the disturbance terms would additionally feature cross-sectional correlation, a seemingly unrelated regression (SUR) setup would yield more efficient estimates than pooled estimation. However, the unbalanced sample requires maximum likelihood estimation of the SUR model (rather than per equation estimation combined with feasible generalised least squares as in the case of an balanced sample). Because of the large amount of coefficients and the substantial number of observations, maximum likelihood estimation becomes practically infeasible. Therefore, we do not consider the SUR model and assume that there is no cross-sectional correlation among the residuals.

6 Estimation results

In this section we present the estimation results for several model specifications that relate the voting bias of the Eurovision countries to several factors, such as geographical location, religion, ethnicity, culture, and religion.

First, we estimate a model with country-specific slopes, allowing all explanatory variables to affect the voting bias of each country in a different way. We refer to this specification as the 'country-specific' model. In the second model that we consider, each variable has equal coefficients across countries (i.e. $\beta_i = \beta$, all i) but possibly different intercepts. We refer to this as the model with constant slopes. In the latter case the model coefficients measure the 'average' effects of the explanatory variables over all countries under consideration.

6.1 Geographical factors

The sample statistics in Section 4.2 suggest that the voting behaviour of European countries contains a strong geographical factor. To test this in a more formal way, we estimate, for each country, the model of equation (5.5). The full list of explanatory variables contained in the vector X_{tij} is provided in Table 6.

The estimation results in Table 7 show that the voting biases of 15 out of 36 countries are significantly affected by their distance to other countries. As motivated in Section 4.2, we distinguish between horizontal and vertical distance (measured between country capitals), as well direction (north, east, south, west; also based on

capitals). Regarding horizontal distance, the bias in the votes to countries close by is generally higher than to countries that are located further away (with Luxembourg and Slovakia as the exceptions). Juries do not show a clear preference for songs coming from, geographically speaking, more western or eastern countries. The number of juries that significantly dislike songs from countries to their west is virtually the same as the number of countries that dislikes contributions coming from their east. Moreover, some juries have a higher voting bias towards all countries close by, independently of the direction (see Germany, Macedonia, and Turkey). Very different results are established for the effects of the vertical distances between capitals. Among the juries for which the vertical distance significantly affects the bias, countries generally show higher biases towards countries that are located relatively far way in a vertical sense (with exception of Bosnia, Finland, and Slovakia). Again, juries show no particular preference for countries that are, in geographical terms, more to their north or south.

Furthermore, for six out of 36 countries (Estonia, Latvia, Lithuania, Macedonia, Slovakia, and Switzerland) the voting bias to neighbouring countries is significantly higher than to other countries, while for two countries (Austria and Macedonia) it is significantly lower. For the remaining 31 countries, there are no significant neighbour effects.

The geographical variables highlight some interesting results. For all three Baltic states the neighbour dummy is highly significant. The distance variables that are significant for Estonia confirm this picture. Furthermore, for Slovenia, and Macedonia − both part of the former Republic of Yugoslavia − neighbour and distance effects also play a significant role. These findings confirm the results of the preliminary data analysis in Section 4, which suggested that the Baltic states and the formerly Yugoslavian countries constitute blocks in which the constituting countries are strongly biased towards each other. However, we now additionally show that these biases exist even after correction for cultural and linguistic similarities and differences, and performance features.

The results show that many countries either prefer or dislike the songs of surrounding countries, even after correction for linguistic, cultural, and other factors. This gives rise to the suspicion that political factors account for the observed geographical effects, as it is difficult to think of any other reasons why countries would show such behaviour. Nevertheless, we emphasise that it is still possible that we have omitted some important explanatory variables which, when included in the regression, would become highly significant and would cause the distance and neighbour variables to turn out insignificant.

We assess the 'average' impact of the geographical variables on the voting bias by means of the constant slopes model. The lower panel of Table 7 ('equal slopes (entire period)') shows that the average neighbour effect is insignificant. However, distance effects do play a role in the model with constant slopes. On average, juries favour countries closer by in terms of horizontal distance, but at the same time, they favour countries further away to the south. Clearly, these results do not provide sufficient evidence for a 'battle' between Eastern and Western Europe as is often suggested. Nevertheless, on average juries favour countries located on the same geographical

width. This means that western (eastern) countries are positively biased towards other western (eastern) countries.

6.2 Religion

The estimation results in Table 9 show that religion significantly influences the voting bias of five countries. Interestingly, religion plays a significant role for some countries, even after the correction for cultural and linguistic similarities and differences.

Bosnia favours countries it does not share a main religion with, while Cyprus, Iceland, Ireland, Latvia, and the United Kingdom show opposite behaviour. These countries favour countries with the same religion. The countries Bosnia, Macedonia, and Turkey in which the Islam is one of the major religions do note show significant preferences based on religion (Macedonia and Turkey) or show a significant preference for non-Muslim countries (Bosnia). The significant role of religion in the voting behaviour of Cyprus and Ireland does not come as a complete surprise. Ireland is known as a deeply Catholic nation, whereas Cyprus has a strong Orthodox tradition. For Latvia and Iceland, both predominantly protestant (Lutheran) countries, the impact of religion is more difficult to explain. The same difficulty arises for the United Kingdom where the Anglican Church represents the main religion.[13]

Religion also turns out significantly positive in the model with constant slopes. See the lower panel of Table 9 ('equal slopes (entire period)'). This means that, on average, countries are positively biased towards countries with the same religious background.

6.3 Ethnicity

The sample statistics in Section 4.4 suggest that countries with a substantial Turkish population are strongly biased towards the Turkish contribution to the song contest. To make this more precise, we extend the collection of covariates with the dummy variable for Turkish nationality introduced in Section 4.4. By doing so, we obtain a first impression of the effects of ethnicity on the voting behaviour of the Eurovision participants. We include the dummy variable for Turkish migration in the model of equation (5.5), assuming that the impact of this variable on the bias to the Turkish contribution does not depend on the voting country. Since the dummy variable does only vary over jury countries and not over time or song countries, we have to impose this restriction for the purpose of identification. This also means that we cannot estimate the resulting equations separately for individual countries, but instead have to rely on joint estimation of the panel model for all countries. The estimation results show that the countries with a substantial population with Turkish roots have a significantly higher voting bias towards Turkey. We refer to this phenomenon as 'patriotic' voting. The estimated coefficient of the Turkish migration dummy has a value of 0.61, with a corresponding t-value of 2.49. To save space we do not report the estimation results for the other coefficients in the model, but we notice that

[13] We do not include the religion dummy in the equation for Israel, since this country is the only country with Judaism as major religion.

they are very similar to the ones obtained in the previous model without a role for Turkish nationality.[14]

The Turkish migration dummy is also significant positively in the model with constant slopes. Its coefficient has a value of 0.95 and corresponding t-value 4.55. This means that, on average, the votes of countries with Turkish immigrants are positively biased towards Turkey. Again, we do not report the full estimation results for the model with constant slopes, as they are very similar to the ones reported in the lower panel of Tables 7, 8, and 9 ('equal slopes (entire period)').[15]

6.4 Language, culture, and other variables

For the remaining variables the estimation results for the model with constant slopes seem to confirm the results of earlier studies. The last rows of Tables 7, 8, and 9 point out that, on average, juries have significantly higher biases towards songs in a related language and to songs coming from a similar culture.[16] Also, on average juries significantly dislike songs sung in French. No significant effects are established for the performance features and the Hofstede dimensions of individualism and uncertainty avoidance. The effects of the host country and the order of performance are not significant either.[17]

However, the estimation results in Tables 7, 8, and 9 also make clear that there are considerable differences across countries. For instance, some juries favour songs coming from a culture that substantially differs from their own in terms of one or more Hofstede dimensions (e.g. Portugal with individualism). Also, some variables that on average do not exert a significant effect on the bias, significantly influence the bias of individual countries (the duet, group, and male dummy variables, as well as the dummy for songs sung in English). Hence, the model with constant slopes might suggest that a variable does not play a significant role in explaining the bias, since positive and negative effects of this variable cancel out when they are averaged over all countries. By contrast, in the country-specific model these variables can turn out to significantly affect the bias of several countries.

The substantial difference in the adjusted 'overall' R^2 between the model with constant slopes (0.022) and the country-specific model (0.073) also underlines the importance of taking into account the differences among the various countries.[18] A formal Wald test provides more evidence in favour of the country-specific model. The constant-slope model is rejected in favour of the country-specific model at a 5% significance level. Additionally, for every explanatory variable the null hypothesis of

[14] These results are available from the authors upon request.

[15] These results are also upon request.

[16] We notice that we do not include the language distance variable in the models for Israel, Turkey, Hungary, Finland, and Estonia, since the languages of these countries have distance one to virtually all other countries.

[17] We notice that we use normalised distances and performance order variables in the regression. We normalise the distances from a country to another country by dividing it by the maximum distance from the former country to the latter countries; we normalise the performance order variable by dividing it by the total number of participating countries in that year.

[18] The overall adjusted R^2 corresponds to the entire system of country equations and represents the average of the adjusted R^2's over all countries under consideration.

similar coefficients across countries is rejected at the same significance level. This does not only hold for the variables related to linguistic and cultural differences and the performance features, but for all explanatory variables included in the specification. Tables 7, 8, and 9 show that the group of variables with the highest relative R^2 are also the ones that turn out significant for the largest number of countries, which emphasises once more their importance.

7 Model robustness

In this section we extend the analysis of the previous section to answer three fundamental questions. First, we assess the relative importance of each of the variable groups that affects the voting bias. Second, by analysing the extent to which the voting bias of a particular country depends on the covariates, we determine whether the bias is 'structural' or not. Finally, we investigate the influence of televoting on the voting behaviour.

7.1 Relative importance of variables

The estimation results point out that many variables significantly affect the voting bias. To gain more insight into the relative importance of each variable group, we run the regression model in equation (5.5) but leave out one of the variable groups while maintaining the others. The variable groups considered are language, culture (i.e. Hofstede's cultural dimensions), performance features, geographical variables, order of performance, and host country. As a measure for the relevance of each variable group, we take the difference between the adjusted overall R^2 of the full model and the model without one particular variable group (the 'reduced' model). The larger this difference, the more relevant a particular group of variables. The estimation results show that the group of language variables is most important (adjusted overall R^2 is 79.9% of that of the full model), closely followed by the geographical variables (82.8%), and the Hofstede cultural dimensions (90.3%). For the other groups of variables the adjusted R^2's of the reduced model are only marginally different from the full model. Obviously, these percentages only provide information on the overall relevance of the various groups of variables and not on the importance for individual countries.

7.2 The effects of televoting

Since 1998 all participating countries use the system of televoting instead of professional juries. Existing research on the Eurovision Song Contest points out substantial differences in the voting behaviour of professional juries and the public; see Haan et al. (2005).

To assess the robustness of our models, we split up the sample in the periods $1975 - 1997$ and $1998 - 2003$ and re-estimate the models for both periods.[19] A few countries participate only in the pre-televoting period (Monaco) or solely after

[19] We note that we obtain virtually the same results when we take the year 1997 (instead of 1998) as the start of the televoting period.

the replacement of professional juries (Macedonia and Latvia). For these countries we obviously cannot identify the impact of televoting. For some other countries (Hungary, Latvia, Lithuania, Slovakia) the results should be interpreted cautiously, as one of the two periods consists of few years only. More robust conclusions for these countries can only be drawn when more data are available. To circumvent this problem, we only consider the fixed effects model with equal slopes at this point. That is, we confine the analysis to average effects over the participating countries.

The lower panel in Tables 7, 8, and 9 ('equal slopes (no televoting)' and 'equal slopes (televoting)') shows that the distance variables play a significant role in the pre-televoting period, but are considerably less important after the introduction of televoting (when only one out of four is significant). Moreover, the preference of some countries for neighbouring countries is a typical feature of the televoting period. In the preceding years juries showed, on average, the opposite behaviour with a significantly negative bias towards neighbouring countries. Before the introduction of televoting, the coefficient of the neighbour dummy in the constant slopes model equals 1.55 (with t-value 5.99), while it equals -0.37 (-2.40) after the introduction of televoting. Also the effect of religion is most pronounced in the televoting period. For the professional juries religion played a much less important role than for the televoting public. In the period with jury voting, the coefficient of the religion dummy is not even significant, whereas it equals 0.57 (4.20) in the televoting period. The role of linguistic similarities and differences between countries is stronger after the introduction of televoting, whereas cultural differences are significant in both periods. Furthermore, Turkish migration plays a significant role both before and after the introduction of televoting. However, the effect in the second period is much stronger than in the first (coefficients 2.84 (t-value 4.83), respectively 0.44 (2.17)). Hence, the substantial effect of Turkish migration in the time-invariant model is mainly due to the televoting period.[20] Finally, the role of linguistic similarities and differences between countries is stronger after the introduction of televoting.

7.3 The bias: more than just noise?

The individual R^2's in Table 9 exhibit substantial variation across countries. For some countries the adjusted R^2's are very high, while fore other countries they are close to zero. A low R^2 means that variation in the bias cannot be explained from the variables under consideration. By contrast, when the R^2 is high the determinants considered succeed well in explaining the variation in the bias. Hence, by comparing the adjusted R^2's across countries, we can distinguish two groups of countries. The first group consists of those characterised by a 'structural' bias that is strongly influenced by the factors we consider. The second group contains those for which the voting bias mainly consists of unexplainable 'noise'. When we consider an adjusted R^2 exceeding 0.10 as 'high', we see that the countries from former Yugoslavia, the Baltic states, the Scandinavian countries (except Norway and Finland), Cyprus

[20] To save space, we do not report full estimation results for the model including the dummy for countries with a relatively large Turkish population. We notice that the estimation results for this model are very similar to the specification that ignores migration. Complete results are available from the authors upon request.

and Greece, as well as the Eastern-European countries Poland and Slovakia have the highest partial R^2. Note that, in an earlier stage of our analysis, we have also encountered these countries; see Section 4.2. In the explorative data analysis these countries appeared on the basis of their high voting bias to other countries in the same country block.

Table 9 also shows that there are three countries (Monaco, Romania, and Russia) which biases are not significantly influences by any of the variables under consideration. Also, the biases of Hungary and Luxembourg is solely determined by its distance to countries to its east. The bias of France is only determined by the language of the song; they dislike songs in English.

8 Political voting: myth or reality?

During virtually all Eurovision Song Contests, there have been accusations that some countries assign votes according to other criteria than pure merit. These presumed 'political biases' have become an important part of the contest's folklore and there is a lively public debate concerning such issues. The Wikipedia entries[21] for the contest provide an interesting and easily accessible source for these accusations in the public domain. On these pages is stated that:

> *"Some viewers claim that politics and international relations dictate a lot of the voting. There is little empirical data to back up these claims, however. Anecdotal evidence does suggest that some regional voting blocks do exist though. Cyprus and Greece have exchanged maximum points (i.e. Greece gives 12 points to Cyprus and Cyprus gives 12 points to Greece in the same Contest) eight times (1987, 1994, 1997, 1998, 2002, 2003, 2004, 2005) since they first competed together in 1981. (...) Additionally, until Turkey won the Contest in 2003, Cyprus had never given points to Turkey. (Cyprus awarded 8 points to Turkey that year). The next year, Turkey awarded a single point to Cyprus for the first time. The Nordic and Baltic countries are perceived to vote as a block for each other, although careful scrutiny of the votes doesn't always bear this out. (...) Similar patterns have been seen in (among others) the states of the former Soviet Union, former Yugoslav republics, Ireland and Britain, and the western Mediterranean. The counterargument to these perceived patterns is that it is natural for people of similar cultures within Europe, sharing common borders where the TV and radio stations of a number of countries can be received, and speaking similar languages, to enjoy similar styles of music. This argument is called into question in the most recent contests, with many competing countries choosing to sing in English - the cultural similarities argument is not viable."*

Our analysis allows us to investigate the significance of the sort of voting biases mentioned in the text above. In particular, suspicions of 'political voting' have risen against countries for which geographical variables significantly influence the voting behaviour, even after corrections for cultural, linguistic, ethnic, and religious effects.

If we look for example at the Baltic countries, we observe that Estonia, Latvia and Lithuania all tend to give significantly more points to neighbouring countries. Additionally, Estonia also favours countries which are roughly on the same meridian; these include Finland, Latvia, and Lithuania.

[21] Website `http://en.wikipedia.org/wiki/Eurovision_Song_Contest`, visited on January 5, 2006.

For the Nordic countries, the pattern is more subtle. If Finland, for example, would favour the other Nordic countries, we would expected it to prefer countries to its west, and to dislike those to its south. Neither of those is true, although the preference for countries to the north boils down to a preference for Iceland (no other country has a capital to the north of Helsinki). For the other Scandinavian countries, none of the geographical features turns out to be significant, apart from Sweden's preferences for countries to its north. That preference seems to indicate a preference for other Nordic countries, since only Iceland, Finland and Norway are to its north according to our definitions. However, the influence seems weak and one would additionally expect the 'neighbour variable' to be significant for Sweden as well, but it is not. On average, Sweden has a maximal bias towards Iceland in the period we consider, which explains why it favours countries to its north, but not its neighbours. In Fenn et al. (2005), Iceland was also included in the 'cluster' of Scandinavian countries. Moreover, although Iceland does not seem to belong to Scandinavia in a geographical sense, it makes part of it from a historical and cultural point of view. We also note that there are strong indications that culture plays an important role in the voting of both Norway and Iceland, since some of the Hofstede dimensions are significant for these countries. On the other hand, the relatively high explanatory power of the model for the voting bias of Denmark and Sweden seems to be caused mainly by song characteristics. Also language plays an important role in all of these countries apart from Iceland, where there is an influence based on religious background. All this leads us to conclude that biases among the Nordic countries are not just political, but based on many other influences as well.

For the next region mentioned in the Wikipedia entry, the former states of the Republic of Yugoslavia, the only significant geographical influences that have been established are connected to Slovenia and Macedonia. The latter country favours countries close by in terms of meridians (i.e. countries which are close by to the west or to the east) and countries that are not its neighbours. Slovenia, on the other hand, strongly favours neighbours. Interestingly, the only other significant variable for Macedonia is a rather extreme preference for the host country. However, since the country participated only three times during the sample period, we should be careful in interpreting this result.

Possible political voting between the United Kingdom and Ireland cannot be substantiated by our research. The United Kingdom favours countries to its north, but also countries to its south. Dublin is north of London, but so are many Scandinavian countries. We see a preference here of the United Kingdom for Scandinavian countries, which was also found in the cluster analysis of Fenn et al. (2005). The models for both the United Kingdom and Ireland have rather low explanatory power compared to other countries. Apart from Hofstede's 'power dimension', only language effects and religious background make a significant contribution.

The suggestions of bias made in Wikipedia against the Western Mediterranean countries (Spain and Portugal) cannot be substantiated either. Both countries have very low explained model variances and the only significant geographical variable of Portugal indicates that it prefers countries to its south and not Spain.

Does our analysis point the finger at some other countries than those mentioned in Wikipedia? The three countries which are most suspicious according to our analysis are Estonia, Latvia, Cyprus, and Slovakia. Estonia and Latvia have been discussed before, but the earlier mentioned case of Cyprus and Greece deserves further mention as it is probably the most often cited example of Eurovision Song Contest voting bias. We see that the huge bias between Cyprus and Greece can be explained for a significant part by the common language and a common religious background. The language effect is influential for both countries, but the religious background is only significant for the voting of Cyprus. For both Cyprus and Greece certain performance features significantly affect the bias. Our analysis shows that linguistic preferences play an important role for many countries (as was also found in the earlier study of Ginsburgh & Noury (2004)), but the linguistic effect is by far the most significant for Cyprus and Greece. Also, Slovakia strongly prefers countries that are on the same latitude or to its west. At the same time it prefers male singers and entries that perform early on during the shows.

Some countries for which the bias is extremely hard to explain are Russia, Luxembourg and Germany. The result for Germany is remarkable, since three geographical variables are significant for this country. Apparently, the explanatory power of these effects is limited. Russia does not have a single significant variable (incidentally, the same is true for Monaco and Romania).

An effect that is not mentioned in Wikipedia at all when discussing voting biases is the introduction of televoting. Our study shows that televoting has significantly affected the voting behaviour. Since its introduction, the influence of religious background has gained importance. Moreover, the influence of foreign nationalities (tested here for Turkish nationality only), although significant both before and after this introduction, has become much more pronounced in the latter period. Also the tendency of countries to favour the songs for neighbouring countries is a typical property of the televoting period.

9 Conclusions

Suspicions and accusations of tactical and political voting are as old as the Eurovision Song Contest itself. This paper investigates in detail whether the suspected political voting biases exist, by looking at geographical influences in the period $1975 - 2003$. We take into account a variety of variables to distinguish political voting from preferences based on cultural, linguistic, ethnic, and religious differences and similarities between countries.

We find that geographical factors substantially affect the voting behaviour in the Eurovision Song Contest. Even after correction for cultural, linguistic and other factors, many countries prefer or dislike the songs of neighbouring countries or other countries close by. This gives rise to the suspicion that the geographical effects reflect 'political' voting, as it is difficult to think of any other reasons why countries would adopt such behaviour.

Also religious background plays a role in explaining the voting bias. Several countries favour the songs of countries with a similar religious background, while others

are positively biased towards countries dominated by different religions. Furthermore, using data on the amount of Turkish immigrants across European countries, we document that countries with a substantial Turkish population favour the Turkish songs ('patriotic' voting). Additionally, we show that both patriotic and religious voting have gained importance after the introduction of televoting in 1997/1998.

Although our study uncovers significant geographical patterns in the voting biases (suggesting political voting), we do hardly find any evidence for the publicly debated accusations of political voting against certain countries. For example, accusations against the Nordic countries cannot be upheld when other influences are taken into account. The same is true for suggestions of political voting bias for the United Kingdom and Ireland, or for Spain and Portugal. Moreover, the huge bias between Cyprus and Greece can be explained for a significant part by the common language and a common religious background. However, we do conclude that there is evidence for political voting among the Baltic states.

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country	# years	# obs.	min bias to	value min	max bias to	value max	min bias from	value min	max bias from	value max
Austria	26	532	Cyprus	-1.87	Poland	3.23	Romania	-1.73	Hungary	1.62
Belgium	26	526	Romania	-1.88	Latvia	2.17	Malta	-1.50	Poland	2.37
Bosnia	9	207	Iceland	-2.39	Slovenia	3.58	Lithuania	-2.17	Turkey	4.82
Croatia	11	254	Sweden	-3.39	Macedonia	5.92	Hungary	-3.06	Macedonia	5.78
Cyprus	21	448	Latvia	-3.06	Greece	9.22	Bosnia	-2.38	Greece	7.73
Denmark	22	450	Italy	-2.93	Monaco	4.07	Macedonia	-4.59	Iceland	3.81
Estonia	9	208	Italy	-4.96	Latvia	5.88	Switzerland	-3.20	Italy	8.96
Finland	24	482	Malta	-3.10	Estonia	5.66	Belgium	-1.14	Estonia	3.84
France	28	579	Monaco	-2.04	Portugal	3.06	Malta	-2.63	Poland	2.33
Germany	28	574	Yugoslavia	-1.67	Poland	3.98	Lithuania	-4.04	Spain	1.91
Greece	23	479	Israel	-2.04	Cyprus	7.73	Latvia	-2.41	Cyprus	9.22
Hungary	4	94	Croatia	-3.06	United Kingdom	2.49	Lithuania	-5.30	Finland	3.52
Iceland	16	352	Malta	-2.17	Denmark	3.81	Romania	-2.51	Sweden	3.18
Ireland	27	554	Greece	-1.41	Hungary	2.34	Iceland	-1.91	Sweden	2.11
Israel	24	491	Italy	-2.07	Romania	3.34	Slovakia	-7.48	Switzerland	2.22
Italy	17	335	Israel	-2.00	Estonia	8.96	Estonia	-4.96	Portugal	4.75
Latvia	4	92	Turkey	-3.28	Poland	8.39	Romania	-4.80	Lithuania	6.08
Lithuania	4	91	Hungary	-5.30	Latvia	6.08	Denmark	-0.94	Latvia	4.65
Luxembourg	19	366	Cyprus	-1.66	Malta	3.08	Switzerland	-1.34	Malta	4.71
Macedonia	3	70	Denmark	-4.59	Romania	6.82	Iceland	-1.32	Romania	7.66
Malta	14	315	France	-2.63	Slovakia	6.33	Finland	-3.10	Slovakia	6.97
Monaco	5	89	Ireland	-1.88	United Kingdom	2.18	France	-2.04	Denmark	4.07
Netherlands	25	512	Italy	-1.89	Belgium	1.53	Romania	-2.62	Israel	2.33
Norway	28	573	Monaco	-1.83	Sweden	3.05	Slovakia	-4.06	Latvia	2.28
Poland	8	184	Turkey	-2.59	Italy	3.39	Cyprus	-1.67	Latvia	8.39
Portugal	27	550	Estonia	-2.23	Italy	4.75	Slovakia	-2.34	France	3.06
Romania	5	118	Latvia	-4.80	Macedonia	7.66	Denmark	-2.18	Macedonia	6.82
Russia	7	162	Turkey	-2.54	Romania	5.86	Slovakia	-3.04	Latvia	4.93
Slovakia	3	70	Israel	-7.48	Malta	6.97	Austria	-0.78	Malta	6.33
Slovenia	9	207	Romania	-2.13	Croatia	4.33	Denmark	-2.37	Bosnia	3.58
Spain	29	596	Switzerland	-1.86	Italy	3.52	Lithuania	-2.02	Greece	2.76
Sweden	28	579	Russia	-2.27	Iceland	3.18	Croatia	-3.39	Denmark	3.54
Switzerland	25	506	Estonia	-3.20	Israel	2.22	Spain	-1.86	United Kingdom	1.35
Turkey	25	520	Cyprus	-2.32	Bosnia	4.82	Latvia	-3.28	Macedonia	4.57
United Kingdom	29	596	Italy	-2.49	Estonia	1.97	Iceland	-2.15	Hungary	2.49
Yugoslavia	13	253	Denmark	-2.43	Cyprus	2.81	Portugal	-2.08	Turkey	3.85

Table 1: Participating countries, number of participated years, and bias

The first column of this table ('country') displays the names of the countries that have participated at least three times in the Eurovision Song Contest in the period 1975 − 2003. The second column ('# years') contains the number of participated years for each country. The third column ('# obs.') shows the total number of votes assigned by each country in the period under consideration. The fourth and sixth columns ('min bias to' and 'max bias to') show the song countries towards which the countries in the first column are most negatively and most positively biased during the observated period. For instance, Austria has the lowest bias towards Cyprus and the highest bias towards Poland. The eighth and tenth columns ('min bias from' and 'max bias from') display the jury countries that are most negatively and most positively biased towards the countries in the first column. For instance, the most negative bias for Austria comes from Romenia, whereas its most positive bias is from Hungary. The remaining columns ('value min' and 'value max') show the values of the minimum and maximum bias.

	Austria	Belgium	Bosnia	Croatia	Cyprus	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Iceland	Ireland	Israel	Italy	Latvia
Austria	-	-0.89	2.44	0.17	-1.87	0.62	-0.23	-0.25	0.54	-0.63	-0.79	0.40	0.06	0.85	-0.30	-1.18	1.47
Belgium	0.73	-	-1.19	-1.16	-0.44	-0.02	-1.66	-1.14	-0.43	1.22	-1.20	-0.16	-0.19	0.27	-0.21	-1.88	2.17
Bosnia	1.43	-0.20	-	2.63	-2.38	-1.60	-1.24	0.33	0.40	-0.31	-1.53	-1.34	-2.39	0.87	0.61	-0.33	-1.25
Croatia	-1.34	-1.34	4.46	-	1.04	-2.04	-2.21	-0.77	-1.23	-0.75	-0.03	0.00	-1.07	-0.84	-0.91	1.76	-3.27
Cyprus	0.02	-0.46	-1.49	0.31	-	-0.90	-1.18	-0.18	0.02	-1.15	9.22	-1.83	-0.76	-0.20	-0.78	0.53	-3.06
Denmark	0.90	-0.46	1.86	-2.79	0.57	-	1.34	-0.75	-1.47	1.61	-1.51	-0.92	2.44	0.91	-1.40	-2.93	0.25
Estonia	1.03	0.73	-1.63	-1.56	-1.41	1.03	-	3.84	1.55	-1.48	-1.27	0.74	1.49	0.36	-0.72	-4.96	5.88
Finland	-0.80	0.11	-0.46	-1.44	0.62	-0.24	5.66	-	-0.13	-0.81	-0.31	3.52	-1.35	-1.56	1.32	3.58	2.32
France	-0.47	1.19	0.85	-0.75	-0.64	0.50	-1.28	-0.29	-	-0.06	0.50	1.56	-1.66	-1.15	1.82	0.60	-0.92
Germany	-0.27	-0.35	-0.14	0.69	-1.05	0.36	0.55	0.10	0.08	-	-1.36	0.00	-0.49	-0.24	0.49	-0.70	1.18
Greece	0.81	-0.09	-1.15	0.76	7.73	-0.79	-1.45	1.23	0.11	-2.02	-	-1.83	-0.22	-0.29	-2.04	-0.77	0.49
Hungary	1.62	-1.28	-0.76	-3.06	0.44	-1.16	1.04	-0.72	0.15	0.81	-0.80	-	-1.46	0.88	-3.05	-1.83	-
Iceland	0.44	-0.67	-1.08	-0.52	0.71	3.81	0.94	1.36	0.48	0.56	-1.31	2.84	-	-1.91	-0.40	-2.12	1.10
Ireland	0.63	0.21	-1.08	-0.52	-0.17	0.61	2.19	0.72	0.55	0.42	-1.41	2.34	0.44	-	-0.18	0.66	0.40
Israel	-0.31	-0.48	-1.67	0.35	0.43	1.02	-1.62	0.98	0.36	-0.66	0.65	-0.16	-0.02	-1.56	-	-2.07	0.39
Italy	0.60	-0.21	0.50	-1.20	-0.54	-1.12	8.96	-0.86	1.09	0.48	-0.09	-1.70	0.05	0.39	-2.00	-	-
Latvia	0.76	0.70	-1.35	-2.11	1.16	1.80	4.01	-0.95	1.31	1.27	-2.41	-	2.68	1.93	-0.20	-	-
Lithuania	-1.70	-0.61	-2.17	-1.13	-0.66	-1.60	0.52	-0.78	-0.18	-4.04	-1.63	-5.30	-0.28	0.53	-2.43	-	6.08
Luxembourg	-1.13	0.10	-1.17	-1.35	-1.66	-1.01	-	-0.49	0.36	-0.16	-0.52	-	-0.38	0.11	0.51	-0.44	-
Macedonia	-1.36	0.49	1.64	5.78	-0.55	-4.59	-1.60	-0.26	-1.00	-2.96	-0.87	-0.17	-2.05	0.17	-0.03	-	-1.86
Malta	-0.32	-1.50	0.62	2.96	1.44	-1.07	-0.47	-0.82	-2.63	-0.61	1.21	-1.31	-0.29	0.48	0.60	0.36	-1.96
Monaco	0.97	0.87	-	-	-	-1.01	-	0.67	0.88	1.91	0.83	-	-	-1.88	-1.23	-0.35	-
Netherlands	-0.72	1.53	-1.14	-1.73	0.30	0.50	0.24	0.06	1.06	0.38	0.27	1.09	-0.05	-0.49	0.71	-1.89	-0.99
Norway	-0.86	-0.33	-0.55	-0.52	0.19	2.44	-0.02	0.77	0.95	-1.54	-0.05	0.78	1.29	0.57	-0.27	-1.20	1.79
Poland	-0.10	2.37	-0.76	-0.87	-1.39	-1.44	2.10	-0.62	2.33	0.98	0.09	2.61	-0.67	-0.29	0.64	3.39	-0.49
Portugal	-0.49	0.68	-1.47	0.12	-0.62	-0.62	-2.23	-1.08	-0.05	1.85	-0.03	-1.57	0.47	-0.95	1.11	4.75	-0.49
Romania	-1.73	-1.32	-1.46	-0.99	0.77	-4.07	-0.68	0.21	0.26	0.83	2.47	-1.17	-2.51	-0.07	0.58	-	-4.80
Russia	-1.25	0.43	-1.23	-0.65	-0.25	-0.01	-1.95	-0.80	1.15	1.73	0.10	-0.64	-0.96	-0.42	1.16	2.35	-0.92
Slovakia	-0.46	0.48	3.02	5.55	2.81	-	0.74	-0.62	-1.40	-1.00	3.15	-2.74	-1.23	-0.85	-7.48	-	-
Slovenia	-0.64	-1.07	1.04	4.33	-0.73	0.67	1.69	-0.84	-0.42	-0.47	-1.10	-0.67	-0.18	0.44	-0.10	1.76	-1.25
Spain	0.06	0.87	-0.31	0.20	-0.37	-0.55	-1.52	-0.36	-1.27	1.91	2.06	-1.57	0.44	-0.44	0.14	3.52	1.18
Sweden	-0.12	-0.89	0.85	-1.99	-1.16	2.21	2.44	1.20	-0.08	0.14	-0.76	1.30	3.18	2.11	-0.55	-1.73	0.13
Switzerland	-0.61	-0.81	-0.77	0.26	-0.34	-1.34	-3.20	0.12	1.60	-0.78	-0.01	-1.00	-0.52	1.05	2.22	0.97	0.75
Turkey	1.23	0.42	4.82	1.91	-2.32	-1.87	-1.30	0.04	-1.94	-0.66	-1.10	0.37	-0.79	0.62	-1.27	1.37	-2.22
United Kingdom	1.15	0.80	-1.47	-1.51	0.58	0.50	1.97	-0.63	-1.12	0.78	-0.64	0.78	0.89	1.66	0.27	-2.49	0.13
Yugoslavia	-0.04	-0.15	-	-	2.81	-2.43	-	0.15	0.35	-0.88	-0.18	-	-1.52	-1.64	0.83	2.00	-

Table 2: Average bias over the period $1975 - 2003$ from row country to column country (part 1)

A '$-$' off the diagonal indicates that countries have never encountered each other in the Eurovision Song Contest.

	Lithu.	Luxemb.	Maced.	Malta	Mon.	Netherl.	Norw.	Poland	Portugal	Romania	Russia	Slovak.	Sloven.	Spain	Sweden	Switzerl.	Turkey	UK	Yug.
Austria	-0.39	0.09	-1.23	-0.36	-0.90	0.30	-0.93	3.23	-0.79	-0.41	0.95	-0.78	-0.96	-0.39	0.67	0.66	-0.19	1.90	-1.01
Belgium	-0.58	0.17	-1.05	-0.34	-0.56	0.38	1.18	-0.43	-0.81	-1.88	-0.59	-0.63	-1.14	1.10	-0.37	0.86	0.00	0.91	0.68
Bosnia	-0.18	-0.48	-1.14	2.07	-	0.66	-1.26	1.36	-1.40	0.19	-2.17	-0.78	3.58	0.15	-0.19	-1.81	1.44	-0.55	-
Croatia	-0.18	-0.48	5.92	3.69	-	-0.77	-0.57	-1.14	-0.37	0.04	1.31	2.15	3.45	1.01	-3.39	-1.08	0.88	1.63	-
Cyprus	1.36	0.24	0.69	-0.41	-	-0.91	-0.20	-1.67	-0.38	0.46	1.82	-0.63	-0.93	2.04	-1.62	-0.23	-1.38	-1.37	3.01
Denmark	-0.94	-0.75	-1.23	1.55	4.07	-0.67	0.82	0.47	-0.98	-2.18	-1.46	-	-2.37	-1.79	3.54	0.69	-0.81	0.94	1.64
Estonia	0.34	-	-1.05	-0.91	-	-1.79	1.21	0.44	-1.57	-1.63	3.93	-0.63	-0.32	-1.69	3.44	-0.54	-2.12	0.17	-
Finland	-0.27	0.28	-0.70	-3.10	-0.35	-1.00	-0.37	-0.39	-0.44	-1.31	-1.41	-0.63	0.20	0.41	0.66	0.36	-0.17	-0.70	-0.13
France	-0.71	0.62	-1.05	-1.39	-2.04	0.55	-1.01	0.68	3.06	0.04	-1.38	-0.63	-0.15	0.23	-1.27	-0.07	1.14	0.36	-1.26
Germany	-0.71	-0.45	-1.05	-0.36	0.92	0.59	0.59	3.98	-0.12	-0.59	-0.63	-0.50	-0.73	-0.12	0.65	-0.23	2.16	0.21	-1.67
Greece	-0.74	-0.60	-0.92	0.83	-0.37	-0.12	-1.02	0.16	0.51	2.95	0.96	1.81	0.26	2.76	-1.73	-0.40	-0.29	-1.99	-1.42
Hungary	0.00	-	-0.70	-2.64	-	1.87	0.73	1.92	0.58	-0.43	0.32	-0.50	0.34	0.26	-0.07	-0.29	-0.36	2.49	-
Iceland	-0.41	-0.83	-1.32	-2.17	-	-1.00	2.00	-0.59	0.52	-1.55	0.21	-0.78	-0.32	-1.32	1.76	0.63	-1.19	-2.15	3.64
Ireland	-0.41	1.32	-1.01	1.65	-0.34	0.71	1.31	-1.27	-0.79	-1.23	-1.01	-0.63	1.07	-1.34	0.16	-0.09	-1.08	-0.54	0.34
Israel	1.50	-0.59	-1.05	-1.50	0.07	2.33	-0.26	-1.29	-0.42	3.34	1.27	-0.35	-1.21	0.71	-0.06	-0.78	-0.13	0.96	2.52
Italy	-	0.26	-	1.66	3.05	-0.17	-0.07	-1.30	0.03	-	-1.43	-	0.59	1.79	-1.09	0.63	0.50	-0.68	-1.47
Latvia	4.65	-	-1.23	1.39	-	-1.51	2.28	8.39	-0.65	-1.73	4.93	-	-1.71	-1.86	1.37	0.91	-3.28	0.96	-
Lithuania	-	-	-1.14	-2.82	-	-0.04	-1.70	-0.41	-1.53	-1.92	3.15	-0.65	2.48	-2.02	-0.55	-0.67	-1.42	1.45	-
Luxembourg	-	-	-	3.08	-0.34	0.54	-0.26	-	1.20	-	-	-	-0.39	0.61	-0.17	0.16	0.22	1.23	-1.03
Macedonia	-0.55	-	-	0.29	-	-2.60	-3.01	-0.83	2.61	6.82	-1.11	-0.35	-0.07	-1.80	-1.10	-0.44	4.57	0.36	-
Malta	-0.45	4.71	0.69	-	-0.24	0.66	-1.19	-0.62	-1.33	0.88	0.12	6.33	-0.85	0.40	-0.68	-0.17	1.89	0.60	0.25
Monaco	-	-0.63	-	-1.88	-	-0.55	0.58	-	-0.05	-	-	-	-	-1.17	0.02	-1.60	1.44	2.18	-0.96
Netherlands	0.98	-0.10	-1.01	-1.71	-0.14	-	0.76	-0.46	0.46	-1.23	-1.06	-0.63	-0.01	-0.65	-0.64	1.31	0.87	-0.92	-1.02
Norway	-0.76	-0.67	-1.01	-0.36	-1.83	-0.81	-	0.16	-0.09	-0.97	0.73	-0.63	-1.03	-1.14	3.05	0.25	-0.60	-0.82	-0.46
Poland	-0.76	-	-0.70	-0.92	-	-0.60	0.14	-	-1.27	1.52	0.19	1.11	-0.22	-0.74	0.00	-0.48	-2.59	-0.26	-
Portugal	-0.76	1.44	-0.70	-0.64	-0.14	-0.63	-0.30	-0.88	-	-1.26	-1.48	-0.63	-0.64	-0.23	-0.52	-0.27	-1.01	0.51	-2.08
Romania	-0.27	-	7.66	-0.92	-	-2.62	-1.77	3.43	-1.72	-	3.56	-0.50	0.89	1.20	-0.72	0.29	1.89	-0.12	-
Russia	4.15	-	2.43	-0.43	-	1.31	1.16	-1.62	-0.11	5.86	-	-0.65	2.04	-0.79	-2.36	0.76	-2.54	-0.28	-
Slovakia	0.00	-	2.43	6.97	-	-1.38	-4.06	-1.08	-2.34	-0.43	-3.04	-	-0.75	-0.12	-1.65	-0.57	-1.90	-1.05	-
Slovenia	-0.25	0.57	1.17	-1.51	-	-0.10	1.08	0.03	-1.33	-2.13	2.39	-0.63	-	-1.73	0.48	0.62	-0.93	-0.58	-
Spain	-0.71	0.06	-1.05	1.00	-0.34	0.37	-1.55	-1.27	2.13	1.50	-1.67	0.06	-0.38	-	-1.46	-1.86	0.29	-0.83	-1.19
Sweden	-0.45	0.17	-1.05	0.33	2.34	-0.34	1.88	-1.53	0.01	-1.42	-2.27	-0.63	0.20	-1.55	-	-1.31	-0.59	0.14	-0.08
Switzerland	-0.27	-1.34	-1.05	-0.24	-0.56	0.18	-0.53	-0.36	0.13	-1.31	-2.98	-0.63	-0.78	1.73	0.22	-	0.89	0.44	-1.51
Turkey	-0.94	-1.29	-1.05	1.80	-0.98	0.72	-0.51	-0.42	0.73	0.21	-1.62	-0.63	-0.27	1.90	-1.10	-0.33	-	0.28	3.85
UK	0.34	0.39	-1.05	0.33	1.13	-0.30	0.26	-0.36	-0.75	-1.63	-1.37	-0.63	0.08	-1.30	0.90	1.35	0.09	-	0.84
Yugoslavia	-	0.01	-	0.20	-1.43	0.34	-0.82	-	-0.27	-	-	-	-	-0.87	0.08	0.73	2.58	-0.91	-

Table 3: Average bias over the period 1975 – 2003 from row country to column country (part 2)

A '–' off the diagonal indicates that countries have never encountered each other in the Eurovision Song Contest.

jury country	**song country**	**average bias before 1998**	**average bias after 1998**
Austria	Turkey	0.8	1.4
Belgium	Turkey	0.9	3.0
Denmark	Turkey	0.5	1.0
France	Turkey	0.0	4.6
Germany	Turkey	0.8	6.4
Netherlands	Turkey	0.2	3.1
Sweden	Turkey	1.0	0.0
Switzerland	Turkey	2.3	1.7
United Kingdom	Turkey	0.5	-1.3
Turkey	Austria	2.7	3.2
Turkey	Belgium	2.5	3.6
Turkey	Denmark	1.1	1.5
Turkey	France	-2.0	-1.7
Turkey	Germany	-0.8	-0.4
Turkey	Netherlands	0.9	0.2
Turkey	Sweden	-0.3	-0.4
Turkey	Switzerland	3.3	0.0
Turkey	United Kingdom	-0.1	1.4

Table 4: Average biases before and after the introduction of televoting

This table shows the average biases of several countries with a considerable population with Turkish roots, calculated over the periods before and after televoting was fully introduced (i.e. before and after 1998). The average biases of Turkey to the same countries are also displayed.

	% total	% victories
language		
English	23.8	48.3
French	12.3	13.8
other	63.9	37.9
performance		
group	25.4	41.4
duet	8.0	3.4
male	24.0	10.3
female	42.6	44.8
order		
first	4.7	10.3
second	4.7	0.0
third	4.7	3.4
8th	4.7	6.9
13th	4.7	6.9
14th	4.7	10.3
last	4.7	13.8
host country		
song sung by host country	4.7	10.3

Table 5: Song properties and percentage of victories

This table displays the percentage of songs in the period $1975 - 2003$ with a certain property, and the percentage of victories with that property. The percentage of 4.7 (e.g. the percentage of songs that performed first) is obtained as the number of years in the sample ($= 29$) divided by the total number of songs over these years ($= 623$).

geography	
x_{ij}^{east}	longitudinal distance between capitals of i and j, if j located to the east of i; zero otherwise
x_{ij}^{west}	longitudinal distance between capitals of i and j, if j located to the west of i; zero otherwise
y_{ij}^{north}	latitudinal distance between capitals of i and j, if j located to the north of i; zero otherwise
y_{ij}^{south}	latitudinal distance between capitals of i and j, if j located to the south of i; zero otherwise
$neighb_{ij}$	one if countries i and j are neighbours, zero otherwise
language	
$lang_{tij}$	distance between language(s) of i and (song of) j in year t
performance	
$male_{tj}$	one if song of j in year t was sung by male solo singer, zero otherwise
$duet_{tj}$	one if song of j in year t was sung by male-female duet, zero otherwise
$group_{tj}$	one if song of j in year t was performed by a group, zero otherwise
$english_{tj}$	one if song of j in year t was sung in English, zero otherwise
$french_{tj}$	one if song of j in year t was sung in French, zero otherwise
$host_{tj}$	one if country j was the host in year t, zero otherwise
$order_{tj}$	order of song of j in year t (1 is first song that was sung)
cultural dimensions	
pdi_{ij}	distance between power distance index of countries i and j
idv_{ij}	distance between individualism index of i and j
mas_{ij}	distance between masculinity index of i and j
uai_{ij}	distance between uncertainty avoidance index of i and j
religion	
rel_{ij}	one if countries i and j share at least one major religion, zero otherwise
ethnicity	
$turkpop_i$	one if country i has a substantial population with Turkish roots, zero otherwise

Table 6: Potential determinants of voting bias

	x^{east}	x^{west}	y^{north}	y^{south}	neighb	lang
Austria	-0.15	**-0.17**				
	(-2.41)	(-2.88)				
Belgium						
Bosnia	-0.16			**-0.11**		
	(-2.54)			(-2.94)		
Croatia						-2.60
						(-2.12)
Cyprus						**-7.32**
						(-6.75)
Denmark						**-2.90**
						(-3.81)
Estonia	**-0.10**	**-0.11**			**3.79**	
	(-4.37)	(-3.74)			(3.84)	
Finland			**-0.45**			
			(-2.81)			
France						
Germany	-0.08	**-0.11**		0.07		
	(-2.00)	(-2.49)		(2.56)		
Greece						**-7.44**
						(-4.85)
Hungary		-0.29				
		(-1.96)				
Iceland						
Ireland						
Israel						
Italy						
Latvia					3.76	
					(2.39)	
Lithuania					3.77	
					(2.12)	
Luxembourg		0.17				
		(2.45)				
Macedonia	-0.21	-0.30			-3.32	
	(-2.33)	(-2.41)			(-2.03)	
Malta						3.25
						(2.16)
Monaco						
Netherlands						
Norway						-1.54
						(-2.03)
Poland						
Portugal				0.06		**-2.53**
				(2.27)		(-2.58)
Romania						
Russia						
Slovakia		**0.52**	**-0.14**	**-0.29**	2.45	
		(2.86)	(-3.38)	(-3.26)	(2.52)	
Slovenia					**2.45**	**-3.89**
					(2.82)	(-2.85)
Spain						**-2.81**
						(-2.92)
Sweden			0.06			
			(2.33)			
Switzerland				0.11	1.51	2.00
				(2.28)	(2.54)	(2.54)
Turkey	**-0.30**	-0.07	0.03			
	(-3.30)	(-2.36)	(1.98)			
United Kingdom			**0.06**	**0.12**		**-2.14**
			(2.65)	(3.47)		(-2.83)
Yugoslavia						
equal slopes (entire period)	**-0.024**	**-0.045**		**0.014**		**-1.04**
	(-4.02)	(-7.37)		(3.82)		(-7.42)
equal slopes (no televoting)	**-0.028**	**-0.044**		**0.017**	-0.32	**-1.09**
	(-3.68)	(-5.91)		(3.94)	(-2.40)	(6.66)
equal slopes (televoting)		**-0.045**			**1.55**	**-1.66**
		(-4.30)			(5.99)	(5.56)

Table 7: Estimation results for fixed-effects models (1)

Tables 7, 8, and 9 display the estimation results for the country-specific model in equation (5.5), apart from the last rows. These rows show the estimation results for the fixed-effects model in equation (5.4) with equal slopes across all countries (but possibly different intercepts). The tables only report coefficients that are significant at at least a 5% significance level. The t-values in parentheses are robust for heteroskedasticity and period autocorrelation and have been obtained from the Newest-West covariance matrix. Coefficients not in bold face are significant at a 5% confidence level; those in bold face are significant at a 1% level. Country-specific intercepts are not displayed.

	male	duet	group	english	french	host	order
Austria							
Belgium						-1.38 (-2.23)	
Bosnia							
Croatia					**-2.38** (-2.97)		-1.38 (-2.03)
Cyprus							-0.96 (-2.05)
Denmark	**1.08** (2.96)		**0.88** (2.90)				
Estonia							**1.34** (2.60)
Finland							
France				**-1.30** (-3.62)			
Germany							
Greece	**0.97** (2.61)					-1.64 (-2.16)	
Hungary							1.48 (2.20)
Iceland	-0.91 (-2.52)						
Ireland					1.14 (2.03)		
Israel	-0.67 (-2.02)						
Italy			-0.92 (-2.05)				**-2.07** (-3.27)
Latvia			**2.47** (2.79)		1.37 (2.07)		
Lithuania		**-2.25** (-2.77)		**2.01** (3.24)	1.78 (1.96)		
Luxembourg							
Macedonia						**4.52** (3.94)	
Malta				2.67 (2.69)			
Monaco							
Netherlands	-0.78 (-2.51)	-1.27 (-2.50)	-0.67 (-2.06)		1.50 (2.55)		
Norway							
Poland							**2.51** (4.27)
Portugal							
Romania							
Russia							
Slovakia	2.47 (2.04)					**-5.61** (-5.67)	
Slovenia		1.33 (2.39)		-0.79 (-2.05)			
Spain					**-2.34** (-3.63)		
Sweden				0.94 (2.48)			
Switzerland			-0.64 (-2.13)	**1.10** (2.75)		**-1.62** (-2.68)	
Turkey					**-2.28** (-4.34)		
United Kingdom					0.94 (1.96)		
Yugoslavia							
equal slopes (entire period)					-0.23 (-2.48)		
equal slopes (no televoting)							
equal slopes (televoting)							

Table 8: Estimation results for fixed-effects models (2)

	pdi	idv	mas	uai	rel	R^2	adj. R^2	# obs
Austria	-0.017 (-2.06)					0.050	0.017	532
Belgium	0.023 (2.16)					0.052	0.019	526
Bosnia			-0.055 (-2.23)		-1.61 (-2.22)	0.151	0.069	207
Croatia						0.235	0.176	254
Cyprus					1.71 (2.10)	0.286	0.258	448
Denmark						0.189	0.155	450
Estonia		**-0.060** (-3.31)		0.031 (2.28)		0.380	0.325	208
Finland						0.040	0.004	482
France						0.061	0.031	579
Germany		-0.039 (-2.30)	0.015 (1.98)			0.033	0.002	574
Greece						0.233	0.203	479
Hungary						0.146	-0.045	94
Iceland		-0.048 (-2.14)	-0.017 (-2.03)	**0.041** (2.99)	1.64 (2.38)	0.163	0.126	352
Ireland	-0.026 (-2.00)				1.21 (2.29)	0.058	0.026	554
Israel						0.029	0.003	491
Italy				-0.031 (-2.16)		0.098	0.047	335
Latvia					**2.27** (3.02)	0.412	0.267	92
Lithuania						0.330	0.162	91
Luxembourg						0.047	-0.002	366
Macedonia						0.361	0.136	70
Malta						0.070	0.020	315
Monaco						0.107	-0.122	89
Netherlands			-0.019 (-2.11)			0.074	0.040	512
Norway		-0.033 (-2.03)	-0.018 (-2.24)	0.029 (2.45)		0.091	0.062	573
Poland		-0.046 (-2.12)				0.240	0.157	184
Portugal		**0.053** (3.77)				0.092	0.061	550
Romania						0.183	0.034	118
Russia						0.054	-0.058	162
Slovakia						0.516	0.345	70
Slovenia			-0.026 (-2.08)			0.202	0.125	207
Spain	-0.024 (-1.96)					0.078	0.050	596
Sweden						0.142	0.114	579
Switzerland		**-0.066** (-3.55)				0.099	0.066	506
Turkey				**-0.040** (-3.25)		0.129	0.100	520
United Kingdom	**-0.039** (-3.16)				1.11 (1.97)	0.076	0.047	596
Yugoslavia	-0.038 (-2.06)		0.077 (2.04)			0.104	0.040	253
equal slopes (entire period)	**-0.006** (-3.12)		**-0.005** (-3.01)		0.193 (2.47)	0.026	0.022	13,014
equal slopes (no televoting)	-0.006 (-2.52)		-0.004 (-2.14)			0.022	0.017	9,698
equal slopes (televoting)			**-0.010** (-3.22)	-0.008 (-2.26)	**0.57** (4.20)	0.094	0.080	3,316

Table 9: Estimation results for fixed-effects models (3)